

REMARKS

Applicants thank Examiner Zacharia for conducting the kind and courteous discussion with Applicants' representative, Daniel R. Evans, on March 2, 2005.

The rejection of Claims 1-9 under 35 U.S.C. § 103(a) over the combined disclosures of U.S. Patent Nos. 6,191,837 (US '837) and 4,674,840 (US '840) is respectfully traversed.

The rejection of Claims 10-18 and 20 under 35 U.S.C. § 103(a) over the combined disclosures of U.S. Patent Nos. 6,191,837 and 5,334,424 (US '424) is respectfully traversed.

US '837 discloses formation of a polythiophene layer on a polarizing plate. The object of the formation is prevention of display quality (i.e., deterioration of liquid crystal) due to static electricity from the externals. The substrate disclosed in US '837 is a glass substrate (col. 12, lines 15 and 33). Nowhere in the disclosure of US '837 is there a description or suggestion of having a polymer film as the substrate.

The Office has taken the position that US '837 is "silent as to the material of the substrates" (pages 3 and 4 of January 4, 2005 Office Action). Applicants wish to seasonably challenge this position. As noted above, there are two instances in the disclosure of US '837 in which the substrate is defined as being made from glass (see col. 12, lines 15 and 33).

US '840 discloses that a polymer is used for a substrate of liquid crystal and a transparent conductive layer is formed on the substrate (see Fig. 2 and col. 3, lines 40). However, the conductive layer works as a general driving electrode. US '840 does not describe polythiophene at all.

US '424 discloses that a transparent electrode is formed on a liquid crystal substrate comprising a norbornene resin (col. 5, line 60 – col. 6, line 22). The transparent made be made from films of metals, films of semiconductors and oxide semiconductors, multilayer

films, films of electrolytes, or films of electroconductive polymers, in which polythiophene is presented as an example of an electroconductive polymer. However, the transparent electrode layer in US '424 works as a general driving electrode.

On the other hand, the present invention is directed to a protective film for a polarizing plate. Regarding the cited references in this regard, US '837 is concerned with a polarizing plate itself, and US '840 and US '424 are concerned with a liquid crystal substrate and the substrate having formed thereon a conductive electrode. Thus, the usages of the present invention and the cited references are quite different.

The reason of formation of polythiophene layer in US '837 is to prevent a product after fabricating a liquid crystal from deterioration of the liquid crystal due to retention of static electricity.

US '840 and US '424 merely disclose examples of a general transparent electrode.

The protective film for polarizing plate according to the present invention has a function to prevent adhesion of dust and the like during fabrication of liquid crystal. Further, in some cases, liquid crystal elements are inspected while having the protective film. Therefore, the protective film is excellent in performance as an optical material.

The Office has taken the position that a substrate made of glass and a film used in a liquid crystal can be readily interchanged. However, a film and the substrate in many instances function in different ways and thus have requirements that are different. Therefore, even if a film is used for a liquid crystal, such a film is not always used for all applications, such as a substrate.

It is true that the three cited references disclose part of layer or film used in a liquid crystal display. However, those references do not describe or suggest the protective film

according to the present invention. It is therefore believed that there is no motivation to combine those references.

It has been desired for a protective film of polarizing plate that is capable of shielding electromagnetic waves (p. 2, 1<sup>st</sup> para.), does not turn yellow (p. 2, 2<sup>nd</sup> para), and has antistatic properties (p. 2, 3<sup>rd</sup> para.). The protective film for a polarizing plate, as claimed in Claim 1, satisfies the above-noted requirements, as can be seen from the data tabulated in the present Specification. The Examiner's attention is directed to pages 11-17 showing embodiments of the protective film having characteristics of surface resistivity, yellowness, total solar energy transmission, and birefringence, which are within desireable limits.

However, there has conventionally been no protective film for polarizing plate satisfying all of those requirements. The conventional protective film for polarizing plate is a film having ITO sputtered thereon. This protective film had the problem that the film becomes discolored with a yellow-tinge upon continued use. The cited references disclose that a polythiophene can be used as a conductive film, but do not pay any attention to such a coloration. The present invention selects polythiophene as a material satisfying the yellowness and other all required performances. It is therefore believed that the claimed invention is not obvious over the cited references in this regard.

It is kindly requested that the Examiner withdraw these rejections.

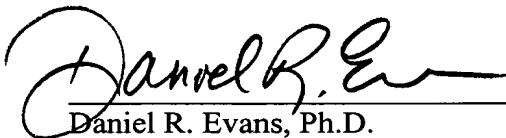
Docket No. 241912US  
Application No. 10/645,533  
Reply to Office Action of January 4, 2005

It is believed that the claims in their current form are in a condition for allowance.

Should the Examiner deem that a personal or telephonic interview would be helpful in advancing this application toward allowance, he is encouraged to contact Applicants' undersigned representative at the below-listed telephone number.

Respectfully submitted,

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